

Under the blow pipe, the crystals darken instantly, but only fuse with difficulty on the edges. They do not decrepitate or ex-foliate. The brilliant luster shown in the closed tube is destroyed and the faces of the crystal become rough and porous. These tests easily distinguish these crystals from green willemite crystals of a similar shape and color which do not darken in a closed tube and fuse fairly easily in a blow pipe flame.

The chlorophoenicite forms long prismatic crystals ranging in size up to 8 mm. The crystal system is monoclinic and the crystals, elongated in the direction of the *b* axis, have a habit similar to epidote. The crystals are deeply striated parallel to the *b* axis and the small prism faces are rounded and usually etched. The color is a light grayish green in natural light but is pink or light purplish red in artificial light. This difference in color is more pronounced on the prism faces than on the pinacoids. The plane of the optic axes is across the prisms.  $2V$  is large with a dispersion of  $\rho > \nu$  and strong; the indices of refraction are,  $\alpha = 1.682$ ,  $\beta = 1.690$   $\gamma = 1.697$ .

Chlorophoenicite occurs in cracks and crevices in the typical franklinite-zincite ore of Franklin Furnace, New Jersey. It is associated with small rose red crystals of leucophoenicite, brown tephroite and calcite. The chlorophoenicite itself is very similar in appearance to the light green willemite that is found in some of the crevices and might at first glance be mistaken for it.

BOTANY.—A new genus of *Leguminosae*. CHARLES V. PIPER, Bureau of Plant Industry.

A Costa Rican climbing shrub or liana collected 25 years ago by Tonduz seems clearly to represent an undescribed genus related to *Calopogonium* Desvaux. The large leaflets, closely resembling the leaves of the aspen, and the dense racemes of very small pubescent yellowish flowers are conspicuous characters.

*Leycephyllum* Piper, gen. nov.

Climbing shrub; leaves trifoliate, the leaflets entire; stipules striate; flowers small, yellowish, numerous, in racemes from the axils of the upper leaves; calyx campanulate, the upper lip short bidentate, the lower lip 3-toothed, the median one as long as the calyx-tube, the lateral ones short; standard obovate, stipitate, the upper margin incurved or hooded, the base without callosities or auricles, but the basal margins thickened; wing oblong, stipitate, the auricle somewhat hook-like; keel oblong-obovate, stipitate, not auricled; vexillar stamen free, its filament enlarged at base, the other stamens united below, free above the middle; anthers oval; style curved, glabrous; stigma terminal, very oblique, minute; ovary pubescent.

*Leycephyllum micranthum* Piper, sp. nov.

Stems terete, densely puberulent when young, becoming glabrous; stipules lanceolate, striate, puberulent, 3 to 4 mm. long; petioles terete, channelled above, faintly striate-ridged, puberulent, usually longer than the leaflets; stipels apparently wanting; petiolules very pubescent; leaflets entire, firm membranaceous, broadly ovate to suborbicular, 3-nerved from the base, strongly acuminate and short-apiculate, broadly cuneate to rounded or even subcordate at base, sparsely puberulent above especially on the nerves, less so beneath, 8 to 10 cm. long; peduncles densely brown puberulent, floriferous from near the base, knotted with the pedicellar glands, 5 to 6 cm. long including the racemes of numerous flowers; bracts lanceolate, 3 mm. long, narrowed at base, long attenuate to apex, densely puberulent, much longer than the buds; pedicels shorter than the calyx; calyx densely brown puberulent, the tube 1.5 mm. long, the median lower tooth as long; corolla yellowish; standard 5 mm. long, puberulent on the outer side and densely covered near the tip with minute sessile glands; wings oblong, 5 mm., the auricle hook-like; keel as long as the wings, oblong-obovate, stipitate.

Type in the U. S. National Herbarium, no. 938783, collected at Las Vuel-tas, Tucurrique, Costa Rica, 635 meters altitude, January, 1899, by Adolpho Tonduz (no. 12951). The label notes "liane a tige aplatir; fl. jaunatres; fr. rouge et noir."

BOTANY.—*Aciachne*, a cleistogamous grass of the high Andes. AGNES CHASE, Department of Agriculture.

The genus *Aciachne* was described<sup>1</sup> by Benthams as dioecious, "Spiculae unisexuales, ♂ ignotae." There is one species, *A. pulvinata* Benth., "Andes of South America." Of the seven collections cited two, *Lechler* 1813 and *Mandon* 1287, are represented in the U. S. National Herbarium. Benthams states: "Notwithstanding the number of specimens from most of the above localities, I have been unable to detect any but female spikelets, which on some of them are numerous, often past flower, and showing only the persistent outer glumes. The males are probably on distinct plants and most likely with a different inflorescence, rendering it difficult to identify them. If that be the case, it is possible that the male of this, or an allied species may be represented by *Lechler's* specimens gathered at Gachapata in Peru a month earlier than the females above referred to, and distributed with the number 599. In these the leaves are longer, all erect, and very rigid,



*Aciachne pulvinata*. Fig. 1, spikelet  $\times 10$ ; fig. 2, floret  $\times 10$ ; fig. 3, palea  $\times 10$ ; fig. 4, caryopsis crowned by old stigmas and stamens  $\times 20$ .

<sup>1</sup> Hook. Icon. Pl. 4: 44. pl. 1362. 1881.